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PATENT

A METHOD AND APPARATUS FOR UPSCALING VIDEO IMAGES IN A
GRAPHICS CONTROLLER CHIP

ABSTRACT OF THE DISCLOSURE

A display controller to upscale a source video image for display on a display unit of a computer system. An encoder circuit in the display controller chip stores in a local memory pixel data of previous scan lines required for interpolation in a compressed format using differential pulse code modulation (DPCM) scheme. A decoder circuit decompresses the pixel data into original format prior to sending to an interpolator. The interpolator receives a present scan line and the decompressed data of previous scan lines, and interpolates the received pixels to generate additional pixels required for upscaling the source video image.

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